

Pollution Prevention Virginia

Spring 2002

A newsletter of Virginia DEQ's Office of Pollution Prevention

DEQ EMS is in Effect



A Message from Bob Burnley



I am pleased to report that I have signed the DEQ Environmental Policy reaffirming the agency's commitment to the implementation of the Department's Environmental Management

System (EMS). The DEQ EMS is the product of many weeks of effort by DEQ staff throughout the State, and it represents our agency's genuine commitment to improving the environment through environmental management systems and pollution prevention.

I have asked all DEQ employees to fully support the agency's commitment to the

EMS. We recently announced the implementation of two key EMS initiatives that will carry out our purposes to reduce the environmental footprint of the Department, reduce operational costs, and also provide a template for others to follow. These two initiatives are (1) a commitment to reduce the generation of solid waste by 5% by June 30, 2002 and (2) to reduce energy use throughout the entire Department. The EMS is a dynamic process, and these initial projects will be followed by other work tasks in pursuit of additional reductions.

The DEQ EMS was developed in accordance with the Virginia Environmental Excellence Program, DEQ's own initiative to promote EMS and P2. The EMS is currently being evaluated for the "E3" status, or "Exemplary Environmental Enterprise" designation. The evaluation is being

conducted by a third party peer review and that designation is expected to be finalized in early May.

In addition to its environmental benefits, the DEQ EMS will help to set the example for Virginia companies and its citizens. Moreover, the agency EMS has already received national attention, and the EPA and other state environmental agencies are asking for our advice and assistance in establishing their own systems.



Thank you for your continuing support.

Robert G. Burnley, Director

DEQ's EMS:

www.deq.state.va.us/p2/ems.html

Virginia Environmental Excellence Program:

www.deq.state.va.us/veep

DEQ Staff Doing P2 & EMS!

DEQ's commitment to P2 and its EMS now extends to the "Employee Work Profile" or position description and work plan for every DEQ employee.

"Each employee will participate in an existing agency pollution prevention/environmental management system initiative or recommend to management at least one pollution prevention approach or implement at least one pollution prevention approach for internal DEQ activities and operations."

DEQ EWPs also contain language related to P2 & EMS training objectives. Regulatory, management,

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Businesses for the Bay Update

Businesses for the Bay Feature Member: Waterloo Motors, Inc

Waterloo Motors in Warrenton is an automotive repair facility that has been a member of Businesses for the Bay (B4B) for two years, and its owner Dan Lowery serves as a B4B mentor. Waterloo Motors is committed to operating in an environmentally-friendly manner, and they are well-known in their support of community P2 and recycling efforts. Waterloo's 11 employees receive environmental training and instruction, and Dan Lowery has provided automotive recycling tips to others in their trade. The facility has been pro-active and innovative in reducing their waste stream.

Waterloo's reputation has helped them to develop a loyal customer base. However, they also have realized cost savings from many of their activities by substitution of materials, changing processes, and utilizing end users of some of their automotive wastes.

Current P2 activities:

- Bulk oil dispensers, gear lubricants, transmission lubricants
- Promote use of synthetic oil (allows for cars to go at least 7,500 miles between oil changes)
- Scrap metal and battery recycling
- Vinyl recycling
- Motor oil and filter recycling
- Use of HVLP paint sprayers
- Collection and recycling of tires
- Distillation and reuse of paint solvents

In January 2002, Waterloo Motors began working with DEQ to expand its commitment to DEQ's pollution prevention initiatives. They are working towards their "E2" designation in the Environmental Excellence Program. In addition, they have applied for a low-interest loan through the Virginia Small



Business Environmental Assistance Fund to fund a P2 project for the purchase of an Antifreeze Closed-Loop Recycling Unit. It is anticipated that the new antifreeze unit will save energy, reduce the quantity of virgin antifreeze purchased, and eliminate disposal costs of the material. As a bonus, the project also qualifies for the State's Tax Credit for the purchase of recycling equipment. For more information, contact DEQ's Benji Brackman at 804-698-4549 or email at enbrackman@deq.state.va.us.

Businesses for the Bay Role is Critical to Success of Chesapeake 2000

The "Toxics 2000 Strategy" of the Chesapeake 2000 Agreement re-commits to the 1994 Toxics Strategy goal of a "Chesapeake Bay free of toxics by reducing or eliminating the input of chemical contaminants...." The strategy embraces the concepts of voluntary "pollution prevention", "reduction", and "elimination" as the means to reaching this goal. Furthermore, the strategy relies heavily upon the expected achievements of participants in the voluntary pollution prevention program *Businesses for the Bay*. The new Toxics 2000 Strategy includes challenging numeric goals for *Businesses for the Bay*:

- *Businesses for the Bay* participants will prevent or recycle a total of **one billion pounds of hazardous substances** between 1999 and 2005.
- By 2005, *Businesses for the Bay* will have **1,000 participants** throughout the watershed; and 50% will be small businesses with fewer than 100 employees.
- By 2005, *Businesses for the Bay* will have a total of **300 mentors** provide voluntary peer-to-peer P2 assistance; and these mentors will annually conduct **500 interactions** with those in need.

Changing of the Guard

Regrettably, *Businesses for the Bay's* Coordinator April Marcy resigned in November 2001. Although April served as coordinator for only one year, she has made a great impact on the program. We will miss her. However, her replacement, Mary Lynn Wilhere started in January; and already is on the ground running. Welcome aboard Mary Lynn!

You can reach Mary Lynn at wilhere.marylynn@epamail.epa.gov or 410-267-5719.

We have our work cut out for us!

Elizabeth River Project Recognizes its "River Stars"!

Ron Pinkoski, DEQ Tidewater Regional Office

The successes of some of the Elizabeth River watershed's most environmentally conscious businesses were celebrated at the Elizabeth River Project's annual River Stars recognition luncheon on December 6, 2001 at the Renaissance Portsmouth Hotel. The Elizabeth River Project, a grass roots organization created to motivate all levels of the community to pursue voluntary environmental goals, started the River Stars program in 1997. The River Stars program encourages and assists interested facilities in pursuing and realizing positive environmental initiatives in the areas of pollution prevention and habitat preservation/enhancement. Since its inception, River Stars facilities have documented reductions of over 141 million pounds of hazardous waste and restoration and conservation of over 60 acres of urban habitat.

The Elizabeth River Project is a partner member of Businesses for the Bay. Through a reciprocal agreement

with the ERP, River Stars are offered immediate membership in Businesses for the Bay!

For more information on the Elizabeth River Project, visit their web site at www.elizabethriver.org.



Model Level

- Southern States Cooperative, Chesapeake Fertilizer Plant

Achievement Level

- Mitsubishi Chemical America, Inc.
- Hoffer Creek Wildlife Refuge
- Norfolk Naval Shipyard
- City of Portsmouth's Greenwood Drive Project

Commitment Level

- Christian Broadcasting Network
- City of Norfolk's Business Partners for Clean Water
- Dominion Virginia Power's Chesapeake Energy Center
- Moon Engineering Company, Inc.
- Sadler Materials Corporation
- SPSA's Refuse Derived Fuel Plant
- Southern Aggregates, LLC.
- U.S. Maritime Administration
- Virginia Port Authority
- Virginia Zoological Park.

Virginia Continues to Lead the Way for B4B in Numbers and Awards!



Virginia Award Winners

To date, there are more than 450 participants and 90 mentors in *Businesses for the Bay*. In 2000, participants reported approximately 23 million pounds of waste reductions, 1.2 billion pounds of recycling, and nearly \$15 million in cost savings due to pollution prevention efforts. Virginia accounts for 230 *Businesses for the Bay* members and 60 of the program's mentors. In 2000, Virginia members achieved reductions of 10 million pounds, 114

million pounds of recycled material, 2.1 billion gallons of water use reduction, and more than \$2.1 million in cost savings.

In 2001, the Executive Council recognized 14 *Businesses for the Bay* participants for their outstanding achievements; and seven of them were from Virginia.

In addition, Ernie Hartman received an achievement award for his leadership in the program.

Virginia Winners:

- Outstanding Achievement Large Business: Siemens Automotive Corp., Newport News
- Honorable Mention Large Business: Lee's Carpet, Glasgow
- Outstanding Achievement Retail Business: Target Corporation
- Outstanding Achievement Nutrient Reduction: Merck & Company, Inc., Elkton
- Outstanding Achievement Medium Business: Beers/Heyward & Lee Construction Company, Richmond
- Significant Achievement Small Business: Southern States Cooperative, Inc., Chesapeake
- Outstanding Achievement Government Facility: Marine Corps Base Quantico

Virginia Environmental Excellence Program



Canon Virginia E3 Ceremony



Tetra Pak Tubex E3 Ceremony



Siemens Automotive E3 Ceremony

100 Virginia participants are sold on environmental management systems (EMS)!

The Virginia Environmental Excellence Program has gained national notoriety as a model for encouraging the development and use of EMS and P2. The program was kicked off in July of 2000, and it surpassed

100 participating facilities fittingly, with the third-party approval of DEQ's own EMS. To date, there are 9 facilities that have achieved E3 designation as an "Exemplary Environmental Enterprise" and 91 facilities designated as E2 or Environmental Enterprise. With numerous applications currently under review and more on the way, it is expected that membership in VEEP will continue to grow at a rapid pace.

For more information about VEEP, visit www.deq.state.va.us/veep/about.html.

VEEP Spotlight: Graham White Manufacturing, Inc. Lewis Pillis, DEQ, West Central



Under the VEEP, participants are required to report annually on their environmental management system and pollution prevention accomplishments. The following P2 successes are from E2 participant, Graham White Manufacturing, Inc. in Salem, which received its E2 designation in December of 2000.

Use of Pre-coated Foundry Sand:

This past year's most significant environmental accomplishment was a change in the way that foundry sand is coated with resin. The purpose of coating the sand is to mix a binder into the sand so that when heated it will harden and readily form a shell, which is the mold into which molten metal is poured. Historically, the foundry had coated its own sand on-site using a phenolic resin. In early 2001, the company began experimenting with a pre-coated sand; and after several months of testing determined that

VEEP Participants:

Environmental Enterprise:

- Fort A.P. Hill
- MetalPro, Springfield
- Safeway, 42 facilities
- Luck Stone, 16 locations
- Graham White Manufacturing, Salem
- Bath County
- Michelin, Scottsville
- Southeastern Public Service Authority (SSA), 19 facilities
- US Marine Corps Advanced Amphibious Assault Vehicle Program
- City of Manassas, Water Treatment Plant
- City of Manassas, Maintenance Garage
- Litton PolysScientific, Blacksburg
- Norfolk Naval Shipyard
- Hampton Public Piers, Hampton
- Two Rivers Yacht Club, Williamsburg
- Salt Ponds Marina Resort, Hampton
- Ginny Point Marina, Cobbs Creek
- Severn River Marina, Hayes



Exemplary Environmental Enterprise:

- Lockheed Martin, Manassas
- Canon Virginia, Newport News
- Siemens, Newport News
- Dupont-Spruance, Richmond
- PolyOne, Winchester
- Tetra Pak Tubex, Louisa
- Brown & Williamson, Richmond
- BAE Systems, Manassas
- DEQ – 7 regional and 3 satellite offices



Gem of Louisa County: Tetra Pak Tubex, Inc.



Tetra Pak Tubex, Inc. is a small manufacturing company in Louisa County that fully appreciates the importance of an effective Environmental Management System. They operate a plastic extrusion facility that makes drinking straws. The facility, which employs only 40 employees, is both ISO9002 and ISO14001 certified. And they have **no** environmental permits.

When DEQ learned about the fact that Tetra Pak Tubex had no permits, DEQ's

P2 staff first step was to make sure the facility's operations were in compliance with the regulations.

After touring its operations and meeting with its Managing Director, Dan Scott, those fears were soon put aside. Tetra Pak Tubex has had an Environmental Management System in place from the beginning. Their process was designed originally in 1990 to minimize all wastes



Tetra Pak Tubex E3 Ceremony

Perry Judd's

*Fuel Costs Sky High? Is There a Better Time to Get More Efficient:
P2 Success Story for the Printing Industry*

Perry Judd's, a flexographic printer in Strasburg, recently replaced its incinerator units with a new regenerative incinerator. Operation of the new unit has resulted in a 75% decrease of its remaining emissions by improving from 98 percent to 99.5 percent efficiency. In addition, the unit uses 50 percent less natural gas for that function, thus avoiding emissions associated with heat generation.

In reaction to last year's high fuel prices, the company started looking at options for cutting fuel consumption. The old incineration units were identified as the top energy-using unit in the facility. Regenerative units had successfully been installed at other company locations, and therefore seemed a natural solution.

The new regenerative incinerator, manufactured by MEGTEC (www.meg.fr), is known as CleanSwitch; and it features various improvements over the original units. The CleanSwitch has two-chambers which continually alternate back and forth from one chamber to the other to prevent overheating. Vapor collection lines are lined with 3 inches of insulation to prevent cooling. Ceramic bricks inside



each chamber help maintain the waste heat generated from the press dryers and the incinerator. All of these improvements allow the burners to be used less frequently, and they cycle on and off according to need.

Cost-savings due to decreased natural gas consumption are significant, and Perry Judd's will receive this cost advantage for years to come – and the plant's long-term environmental impact will be decreased as well. Perry Judd's is also considering other pollution prevention ideas and programs with DEQ staff. For more information, please contact Perry Judd's Bill Pence at bpence@perryjudds.com or 540-465-3731 or visit their web site at www.perryjudds.com.

so that treatment, handling, and regulatory involvement is unnecessary.

Tetra Pak Tubex's EMS starts from the top and from the beginning. Their Environmental Policy Statement emphasizes pollution prevention, environmental responsibility, and continual improvements through their EMS. It also identifies the link between the company's success and growth and its reputation for environmental excellence. All employees receive environmental awareness training as part of orientation and receive periodic "updates" to their training.

Their EMS stresses continuous improvements in environmental performance. Significant P2 achievements have been made through energy efficiency (heat reclamation, lighting, and maintenance), disinfection of cooling waters (using UV), and in overall production efficiency (cutting technologies). What they do produce is some solid wastes in the form of waste plastic, cardboard, and pallets; but they are achieving nearly 100 percent recycling of these waste streams.

On January 10, 2002, DEQ recognized Tetra Pak Tubex Inc. of Louisa County for achieving their "Exemplary Environmental Enterprise" designation in the Virginia Environmental Excellence Program. Tetra Pak Tubex, Inc. is headquartered in Stavie, Sweden, with related manufacturing sites in South America, Europe, Asia and Australia. For more information, see <http://tetrapakusa.com> or contact Dan Scott at 540-967-0733.



"e-Cycling" Project to be Kicked Off in Virginia Beach

Kim Easter, P2 Staff

Attention Virginia: We're up to our armpits in old electronics!

Computers, TV's, stereos, telephones, and other electronics equipment are quickly becoming a significant waste stream for Virginia localities, filling up landfills and creating potential exposure to hazardous materials.

The question of what to do with used electronic equipment is an urgent one. Consider that more than 63 million

...to develop an economically and environmentally sustainable system for the collection, reuse, and recycling of electronics...

personal computers are projected to be retired in 2003, according to a 1999 National Safety Council report. The av-

erage life-span of a Pentium-class computer is currently about 2-3 years and falling. Electronics that break often are not repaired due to the relatively low price of replacement equipment. When the equipment breaks or becomes obsolete, it is commonly discarded. In addition to that, businesses should be aware that computers and other electronics have hazardous components and can fail tests for hazardous waste – meaning that they should not be disposed of as normal solid waste. (For private citizens, electronics

although hazardous, are still exempt; and can be disposed of in landfills)

To deal with this problem, EPA Region III has helped to create an "eCycling" partnership among EPA, Virginia, Delaware, Maryland, Pennsylvania, West Virginia, and the District of Columbia to recycle unwanted computers, computer equipment, and televisions. EPA Region III has also partnered with members and trade groups of the electronics industry, Sony, Panasonic, Sharp, Envirocycle Inc., Waste Management Asset Recovery Group, Elemental Inc., the Electronic Industries Alliance (EIA), and the Polymer Alliance Zone of West Virginia.

The overall goal of eCycling is to develop an economically and environmentally sustainable system for the collection, reuse, and recycling of electronics — that is based on the principle of shared responsibility among business (electronics manufacturers and retailers), government, and consumers. The U.S. EPA Region III and the Region 3 States signed a Memorandum of Understanding to manage eCycling end-of-life electronics as a solid waste through the Mid-Atlantic States.

Virginia Beach to Host Initial Virginia Event

In order to learn more about the logistics and costs associated with such efforts, the Region III eCycling project is co-sponsoring with the Virginia DEQ and 5 Virginia localities for "pilot" electronics recycling collection events. Participating Virginia local governments include Central Virginia Waste Management Authority (CVWMA), City of Virginia Beach, Wise County and Frederick County.

Virginia will officially kick-off the project on **May 11th in Virginia Beach at the Virginia Beach "SportsPlex"**. High-level environmental dignitaries from EPA Region III and state and local officials are expected at the event. For more information on the project please visit www.epa.gov/reg3wcmd/eCycling.htm or contact Kimberly Easter, Virginia DEQ, at 804-698-4543.

If you would like to learn more about disposal alternatives, product stewardship options, regulations for disposal and other initiatives specific to Virginia, please visit Virginia's Green Electronic Program's website at www.deq.state.va.us/rupluggedin/.



VEBC's Virginia Naturally 5K Nets Funds for Science



Saturday, February 22, 2002, DEQ's Director Bob Burnley presented a check for \$7500 to the Virginia Junior Academy of Science (VJAS). The

presentation ceremony was held at the Virginia Museum of Science in Richmond. Accepting for the Virginia Junior Academy of Science were Susan Booth, VJAS Director, Jessica Hawthorne, VJAS President, and Whit Saliba, VJAS Vice-President. The

\$7500 has been earmarked to support special purchases of

equipment and supplies for student science projects statewide that might not be funded otherwise.

The funds were raised by the Virginia Environmental Business Council's 2nd Annual "Virginia Nat-urally 5K" race, which was held on September 28, 2001 at Richmond's James River Park Pony Pasture Area. The Virginia Environmental Business Council is a trade association representing environmental-based companies in Virginia, and it worked in partnership with the Virginia Department of Environmental Quality and a wide array of business sponsors to make this race successful.

The race is named after "Virginia Naturally", the Virginia DEQ's initiative to promote life-long learning and environmental education. Nearly 200 runners participated in the race which

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The Virginia Healthcare Challenge

Kim Easter, DEQ, P2



This spring, DEQ will offer a "challenge" to Virginia hospitals and other healthcare institutions to meet the terms of the

1998 "Memorandum of Understanding (MOU)" between the EPA and the American Healthcare Association (AHA). The MOU commits to voluntary pollution prevention and mercury reduction goals.

The MOU evolved, in part, to respond to Virginia's landfill problems related to the disposal of medical wastes. In 1999, these problems resulted in the issuance of DEQ citations and extensive negative press for the landfills in question as well as the healthcare facilities involved. In 2001, DEQ's Office of Pollution

Prevention developed a comprehensive strategy to meet the terms of the MOU and address pollution prevention opportunities in Virginia's healthcare industry.

The project will begin with the first meeting of a Healthcare Pollution Prevention Work Group that will consist of the core group of interested hospitals and organizations such as the Virginia Healthcare Association, Healthcare Without Harm, Hospitals for a Healthy Environment (H2E), UVA's MERCI program, the Virginia Department of Health, DEQ RCRA and Enforcement, the Washington DC Hospital Association, and any interested hospital or healthcare corporations or facilities. This meeting is proposed for mid-April, and the group will work to support and promote hospitals that take a leadership

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Graham White Manufacturing continued from page 4

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the re-coated sand preformed as well if not better than the company-coated sand.

In 2000, Graham White reported a total of 36,458 pounds of methanol released to the air during mixing. The switch to pre-coated sand will eliminate this release. Other unexpected benefits of the pre-coated sand have become evident, the first of which is a reduction of individual mold weight. The amount of sand used in a mold is proportional to the strength of the mold. The company found that they could reduce the amount of sand used in many of the molds that they make. This also reduces the cycle time of the mold forming operation. To date, the facility has documented \$71,291 in annual timesavings and \$22,057 in annual sand savings.

Resin:

Part of the original sand mixing system required the facility to store flammable phenolic resin in a 7,000 gallon outside above ground storage

tank (AST). The AST has been emptied and will soon be removed. As a result of changing to the new pre-coated sand, the facility no longer needs to store this resin on site. It also has allowed the elimination of approximately four 55-gallon drums of hazardous waste per year.

New Sand Reclaim System:

In September of 2001 Graham White installed a new Didion Rotary Media drum. This unit separates the castings from the loose sand and breaks down mold lumps to grain size, allowing the facility to offer the sand to another local business, which re-uses the sand in their process. While Graham White had a sand reclaim unit in operation prior to this installation, this newer unit has replaced the function of two separate pieces of machinery. Its new location is much more central to the use of the sand and reduces employee travel time in sand handling by about seven miles per day.

For more information on Graham White Manufacturing, you can contact DEQ's Lewis Pillis at 540-562-6789 or ljpillis@deq.state.va.us.

Partnering for P2 in Western and Southwestern Virginia!

Lewis Pillis, DEQ, West Central

Even before the days of prohibition, businesses have been leery of government regulation. Even though the Office of Pollution Prevention performs non-regulatory functions, many people do not feel comfortable exposing a problem or associating their business with a regulatory agency. The DEQ Office of Pollution Prevention makes use of technical discussion groups to help disseminate P2 information and solve problems with companies that do not wish to have a direct association with the DEQ. Some of the groups in western and southwest Virginia that are discussing pollution prevention are:

The **Appalachian Regional Recycling Consortium** provides a variety of integrated solid waste management and innovative recycling technical assistance services including a web site at: www.nrvpdc.org/arrc/arrc.html, solvent alternative resource guides, workshops and seminars, business and locality waste audits, and micro business opportunities for recycled materials. Contact Pat Therrien, Manager, at 540-639-9314, FAX 540-831-6093, pat@swva.net or at 6580 Valley Center Drive, Radford, Virginia 24141-5669.

The **Manufacturing Technology Center (MTC)** in Wytheville is a Small Business Development Center operated in partnership with the Virginia Department of Business Assistance and the U.S. Small Business Administration. The MTC provides environmental compliance and regulatory assistance to existing and potential small- and medium-sized businesses. The Wytheville MTC also facilitates a Peer to Peer professional luncheon group in Dublin, who are a group of industry representatives who meet once a month to discuss environmental and health

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environmentaLodging

www.deq.state.va.us/lodging/lodging.html



The Hotel Roanoke



Llewellyn Lodge

environmentaLodging is DEQ's P2 awareness and public recognition initiative for the hospitality industry. The program encourages hotels and resort facilities to incorporate practical P2 measures such as optional linen service, water-conserving fixtures, energy-efficient lighting, and the purchase and use of environmentally-friendly products. Participants benefit from cost savings, free technical assistance, public recognition, and increased customer patronage. Meanwhile, the public is reminded of their own opportunities to reduce pollution in their everyday lives and through their purchasing decisions.

To participate in *environ-mentaLodging*, facilities simply have to document their P2 measures – whatever they are doing – and let DEQ know about it. DEQ lists these measures on a framed certificate that is presented to the facility, as well as on the *environmentaLodging* website. DEQ is currently working with nearly 50 Virginia facilities to document their P2 measures, and 12 have received *environmentaLodging* certificates.

The *environmentaLodging* website provides fact sheets and success stories to help facilities identify possible P2 activities. It also includes a simple checklist of P2 measures for hotel facilities that can be filled out and sent in to join the program.

environmentaLodging participants:

- Kingsmill Resort, Williamsburg (www.kingsmill.com)
- Wintergreen Resort, Wintergreen (www.WintergreenResort.com)
- Llewellyn Lodge, Lexington (www.Llodge.com)
- Westfields Marriott International Conference Center, Chantilly (www.marriott.com)
- The Morrison House, Alexandria (www.morrisonhouse.com)
- Mountain Lake Hotel, Mountain Lake (email: mtnlake@swva.net)
- Martha Washington Inn, Abingdon (www.camberleyhotels.com)
- Marriott at Kingsmill, Williamsburg (www.marriott.com)
- The Williamsburg Hospitality House, Williamsburg (www.hospitalityhouse.com)
- The Hotel Roanoke, Roanoke (www.hotelroanoke.com)
- Airlie Conference Center, Warrenton (www.airlie.com)
- Wyndham Hotel, Sandston (www.wyndham.com)
- The Brandermill Inn (www.brandermillinn.com)

environmentaLodging Technical Assistance & Case Studies

With funding through EPA's "Pollution Prevention Incentives for States" grant, DEQ is working with four Virginia facilities to participate in a case study. DEQ has contracted with the non-profit organization *GreenSeal* to perform comprehensive "Pollution Prevention Opportunity Assessments" for each of these facilities, thoroughly documenting the environmental benefits and cost savings of existing P2 practices and opportunities. The four facilities are the Hotel Roanoke, the Williamsburg Hospitality House, the Llewellyn Lodge in Lexington, and Wintergreen Resort.

DEQ plans to promote *environmentaLodging* at various events in the coming year, such as an *environmentaLodging* conference that is being planned for early Fall. In addition, DEQ is working to integrate *environ-mentaLodging* with Virginia's "Eco-tourism" initiatives, such as the developing Migratory Birding and Natural Area Trails. However, the most successful promotion to date has been through "word-of-mouth" referrals from DEQ employees and others that have noticed positive activities at various facilities. When staying at Virginia hotel and resort facilities, please take a moment to notice any environmental positives, and let DEQ know. *environmentaLodging*'s project manager Heather Sewell can be reached at hksewell@deq.state.va.us or 804-698-4362.



Mountain Lake



The Airlie Center

Kingsmill



and safety topics. Guest speakers include individuals from regulatory agencies such as DEQ and DOLI, as well as insurance, energy and universities. Contact Joanne C. Chance at 800-468-1195 (ext. 4858), wccchanj@wcc.org, or 100 East Main Street, Wytheville, VA 24382.

The **Southwestern Virginia Environmental Roundtable** provides a forum for environmental managers associated with local industry to exchange ideas, technical knowledge, regulatory information and professional fellowship regarding pollution prevention and other important environmental issues. The group meets the second Tuesday of each month, and there is no charge for membership. Contact: Dean Kaiser at Olver Labs (540) 961-0998, x3011; dkaiser@olverlabs.com or VER, PO Box 47, Blacksburg, VA 24063-0047.

The **Virginia Environmental Business Council's** goal is to enhance the business and job growth of both established and emerging environmental companies in Virginia. They currently represent approximately 3,200 companies. VEBC also operates an interactive web site at vebc.org.

Innovative Technology Resources

DEQ Office of Innovative Technology Web Site

www.deq.state.va.us/innovtech

The web site provides information and links to help environmental technology entrepreneurs and vendors to develop and commercialize their technologies. It also helps those seeking new environmentally preferable technologies to find solutions that meet their needs. The site includes information and links addressing:

- Demonstration, Verification, and Technology Inventories
- Research, Development, and Technology Transfer
- Financing, Economic Development, and Business Assistance
- Export Assistance
- Environmental Business Directories and e-Commerce



VESN

The Virginia Environmental Services Network (VESN) is a searchable database of over 660 providers of environmental products and services that serve Virginia. VESN provides more than company names. It notes company service areas, capabilities, and project experience. Please visit www.vesn.org to list your company's services or find a provider of environmental services.

CBP Innovative Technology Clearinghouse

The Chesapeake Bay Program's (CBP) Innovative Technology Task Force created the CBP Innovative Technology Clearinghouse to help environmental technology providers to get the word out about their innovative technologies while helping companies, localities, regulators, and others to identify potential technical options to help protect and restore the Bay. Please visit www.chesapeakebay.net/innovative.html to list your innovative technology or find a technology that might meet your environmental needs.

For more information, please contact DEQ's Rodney Sobin at 804-698-4382 or rsobin@deq.state.va.us.

Announcing the Hampton Roads Excess Materials Exchange!

Beginning in April, the Hampton Roads Excess Materials Exchange (HrxME), a cooperative project of Old Dominion University, the Hampton Roads Planning District Commission, the Hampton Roads Sanitation District, the Center for Innovative Technology, the Elizabeth River Project, the Southeastern Public Service Authority, and the Department of Environmental Quality. HrxME serves two distinctive purposes. The first is to provide a free service to match

Check out the site at
<http://hrxme.cee.odu.edu/index.html>

businesses producing industrial by-products, residuals, or surplus materials with other businesses that can beneficially reuse the materials. For instance, HrxME users can find someone who needs their excess materials, find a routine buyer for their excess material stream(s), find used materials at a lower cost and turn disposal cost into savings. Secondly, HrxME is an information source for the community on waste management, pollution prevention, and

recycling. Wastes included in the exchange are acids, alkali, paints, solvents, containers, process residuals, and obsolete products such as car and bike parts, furniture & appliances, metal scrap, glass, and construction materials. The site includes numerous pollution prevention links, information, and educational materials.

The site is easy to use – users must register as members to post or request material. Non-members are able to search and view material catalog listings; however, they cannot post listings.

Virginia Clean Marinas also Receive E2 Designation

On November 14, 2001, five Virginia marinas became the first in the state to earn designation as a Virginia Clean Marina. However, recipients also received additional recognition as "Environmental Enterprises" (E2) through the DEQ's VEEP. Ron Pinkoski, P2 staffer in DEQ's Tidewater Regional Office has worked closely with the Virginia Clean Marinas so that the marinas would be eligible to receive additional recognition and assistance through VEEP.

Clean marina recipients that have developed an environmental policy statement are eligible for designation in VEEP as an "E2" facility, indicating that they have the

foundation in place for development of a comprehensive EMS. The following Clean Marinas are now E2 participants as well:

- Hampton Public Piers, Hampton
- Two Rivers Yacht Club, Williamsburg
- Salt Ponds Marina Resort, Hampton
- Severn River Marina, Hayes
- Ginny Point Marina, Cobbs Creek



DEQ's Ron Pinkoski provides EMS and P2 technical assistance in support of the Clean Marinas program, and he can be reached at 757-518-2007 or rjpinkoski@deq.state.va.us.

Virginia Naturally 5K Race continued from page 6

winds along the James River and its floodplain areas. The race also featured donated prizes, awards for all age brackets, and a volunteer trail clean-up.



committed to doing our part to support environmental education in Virginia."

The 3rd Annual Virginia Naturally 5K is already scheduled for September 28, 2002. For more information on the Virginia

Environmental Business Council, contact Brenda Robinson at 804-264-7445 or www.vebc.org.



Brenda Robinson, the Chair-man of the Virginia Environmental Business Council said, "The members of the Virginia Environmental Business Council realize the link between the business of protecting the environment and environmental education and science. We, at the VEBC, are

For more information about Virginia Naturally, access www.vanaturally.com. For the Virginia Junior Academy of Science, contact Susan Booth at 757-874-9301 or access www.vacadsci.org/vjas-1.htm.

All DEQ Staff Doing P2 & EMS! continued from page 1

and program staff have an additional requirement to incorporate P2 into their core responsibilities. What this means is that all DEQ employees are expected to do at least one thing related to pollution prevention and EMS.

The Office of Pollution Prevention has created a webpage on the agency's Intranet listing ideas and opportunities for agency

staff to integrate Pollution Prevention and EMS activities to every aspect of the agency – imagine 900 DEQ staff- persons promoting and practicing P2 and EMS!



Many DEQ staffers are taking the "P2 Office Pledge" in support of the EMS.

Virginia Healthcare Challenge continued from page 6

role in advancing environmental responsibility and sign a 'pledge' committing to do so.



In addition to the work group, DEQ plans to contract for 5 pilot P2 opportunity assessments at Virginia healthcare facilities to identify potential pollution prevention opportunities within the next year. These site visits will be documented as Virginia "successes" and shared with other Virginia facilities.

For more information on the Healthcare Challenge, please contact Kim Easter at 804.698-4543 or kreaster@deq.state.va.us.

No Cost Energy Audit

The Office of Pollution Prevention (OPP) now provides no cost on site energy audits. Let OPP find ways to improve energy efficiency or identify alternative energy opportunities, which will reduce cost and protect the environment. For more information contact Keith Boisvert at 804-698-4225 or kaboisvert@deq.state.va.us

Pollution Prevention Virginia Goes Electronic!

In the spirit of P2, this will be the **last** hard-copy version of our newsletter, *Pollution Prevention Virginia*. In order to make this change a gradual one, the past 3 issues of P2VA have been made available electronically and in hard-copy. From now on, however, P2VA will only be available in electronic format. This *P2 process change* will eliminate the costs and environmental impacts associated with the printing of over 6500 copies of each newsletter.

When each new edition of P2VA is ready, we will email a notice to all of our subscribers with a direct link to the newsletter on DEQ's Office of Pollution Prevention website, www.deq.state.va.us/p2.

However, in order for us to send you this notice, we must have your email address! Please send a quick email to jkcomfort@deq.state.va.us, AND please write "P2VA" in the subject line.

Thank you for your assistance!

Sociology Students Encourage P2 at RMC



DEQ's OPP staff recently worked with Professor Douglas Dunkel's Environmental Sociology class at Randolph-Macon College in Ashland to examine the school's commitments to the environment. The class learned about a wide array of P2 concepts and programs and applied them — first to society at large, then to their own facility, Randolph-Macon College and its student body. P2 staff guided the class on the problem-process of conducting "a P2 opportunity assessment".

Working with the college's Physical Plant Director, Tom Dwyer, and P2 staffers Tom Griffin, John Handzo, and Keith Boisvert, the class addressed the college's significant waste streams. The class's efforts were divided into four groups that addressed water, waste, energy, and student's attitudes. The groups gathered information from a myriad of sources: water, sewer, and energy bills; surveying the student body; internet researching of technologies; meetings and emails with college staff and local officials; and even some late-night reconnaissance and verification work.

The class culminated with the presentation of findings and recommendations to the college. One overall finding is that Randolph-Macon's

Physical Plant is very committed to operational efficiencies, and has already implemented many projects that have resulted in reduced impacts on the environment and cost savings to the college. In addition, college officials were supportive of this effort and receptive to making beneficial changes. Below is a list of additional findings:

- **Water:** Low-Flow, High Pressure toilets, showerheads, and spigots can save significant money for the college. It was estimated that the installation of showerheads alone could save the school over \$10,000/year with an estimated payback of 1 year.
- **Waste:** Establishment of a recycling program is feasible, but will take commitment and partnerships by the school, the student body, fraternities, and the Town of Ashland. Savings of up to \$4000/month could be realized through recycling/waste diversion efforts.



- **Energy:** Through simple energy conservation efforts and policies and the installation of dimmer switches, electricity expenditures could be cut by over \$4500 for a single academic building.
- **Survey:** The overwhelming majority of students and faculty are committed to the environment and would participate in recycling and other environmental programs, if they were made easy and available.

The class also recommended that the school institutionalize a voluntary commitment to P2 and the environ-

ment by joining one or more of DEQ's voluntary programs, such as Businesses for the Bay

and the Virginia Environmental Excellence Program. DEQ is working with RMC to solidify these commitments and will continue to assist the college in its pursuit of P2 activities. For more information on the class, please contact Reber Dunkel at 804-537-5069.

Announcing...

The National Pollution Prevention Roundtable is now accepting applications for the 6th annual MVP2 Awards.

The MVP2 awards are presented annually by the National Pollution Prevention Roundtable (NPPR) recognizing the nation's leaders in Pollution Prevention (P2). P2 programs and/or projects from private industry, government agencies, academic institutions, "non-governmental organizations" (NGO's), and even individuals are eligible.

The MVP2 Awards have historically been given to programs and projects that have made significant contributions to furthering P2 awareness and technologies. As such, the applications are judged on the following criteria:

- Innovation
- Measurable Results
- Transferability
- Commitment
- Optimization of Available Resources



Applications are due in the Roundtable office by close of business on August 7, 2002!! NPPR will notify winners by September 1, 2002 and will present awards during P2 Week in Washington DC (September 15-21, 2002).

For more information, see the NPPR website at www.p2.org.

P2 Events Calendar

May 11, 2002

EPA Region III eCycling event in Virginia Beach. Virginia DEQ, in partnership with EPA Region III and the Electronic Industries Alliance (EIA), will host the first of five pilot residential electronics recycling collection events in Virginia Beach. This event will be held at the Virginia Beach Sportplex Stadium and is open to all Virginia Beach residents. Information learned from the pilot projects will be used to develop a long-term solution to encourage electronic product recovery and recycling. For more information, including what materials will be accepted, visit www.hrclean.org or contact City of

P2 Events Calendar Continued...

Virginia Beach Public Works at 757-430-2450. For information on other eCycling collection events in Virginia, visit www.deq.state.va.us/rupluggedin and click on eCycling.

May 13-15, 2002

2002 EPA/DOD/State Environmental Colloquium titled "Sustainable Environmental Stewardship, New Directions in protecting our Environment, our Resources and our Mission" in Baltimore, MD. The goal of this colloquium is to encourage open communication and an exchange of ideas in support of our conference theme. It will stress the challenges of protecting the environment and our natural resources and meet their mission requirements. To register or for more information, please visit www.epa.gov/reg3esd1/fedfac/index.html

May 14-16, 2002

DOE's E-Vision 2002 Conference: Shaping Our Future By Reducing Energy Intensity in the U.S. Economy in Arlington, VA. This important event

will provide an opportunity for participants to engage in a dialogue with Assistant Secretary David Garman and many other leading public and private sector energy officials to discuss how to establish a national priority for improving energy efficiency. The buildings sector is one of four sectors that will be covered at the conference. If you have questions about the conference, please feel free to contact Jeff Dowd (202) 586-7258, jeff.dowd@ee.doe.gov, <http://www.e-vision2002.com/>

July 4, 2002

The *Piedmont Environmental Fair* will be held in Warrenton, VA at the Airlie Conference Center. The fair will include environmental activities, exhibits, fly-fishing, dog races/demonstrations/shows, music, garden tours, nature walks, music, crafts, foods, and much more. For more information, please call 540-347-2334, email pec@pecva.org or visit their web site at www.pecva.org. The fair will be from 11am-5pm rain or shine and cost \$10 per carload.

Environmental organizations are welcome to exhibit free of charge.

July 17-18, 2002

Restoring Green Space: Using Ecological Enhancements at Superfund, RCRA and Brownfield Sites, Washington D.C. Participants at this invigorating, action-oriented meeting will discover how to remove institutional barriers and begin implementing enhancement projects at sites. Remediation projects, which apply natural resource-based approaches are achieving substantial cost savings as well as improving the social, economic and environmental value of sites. Encouraging sustainable development through ecological approaches also creates valuable benefits for communities, such as green space and opportunities to learn about the environment. Visit www.wildlifehc.org/events/rcra.cfm for more information.

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